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**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 20465.01	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/TR 03/00083	International filing date (day/month/year) 05.11.2003	Priority date (day/month/year) 13.11.2002
International Patent Classification (IPC) or both national classification and IPC E02D3/12		
Applicant ERDEMGIL, E. Mete		

<ol style="list-style-type: none"> <li>This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</li> <li>This REPORT consists of a total of 5 sheets, including this cover sheet.           <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 2 sheets.</p> </li> <li>This report contains indications relating to the following items:           <ul style="list-style-type: none"> <li>I    <input checked="" type="checkbox"/> Basis of the opinion</li> <li>II   <input type="checkbox"/> Priority</li> <li>III   <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV   <input type="checkbox"/> Lack of unity of invention</li> <li>V   <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI   <input type="checkbox"/> Certain documents cited</li> <li>VII   <input type="checkbox"/> Certain defects in the international application</li> <li>VIII   <input type="checkbox"/> Certain observations on the international application</li> </ul> </li> </ol>
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Date of submission of the demand  11.06.2004	Date of completion of this report  30.03.2005
Name and mailing address of the international preliminary examining authority:   European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer  De Neef, K Telephone No. +31 70 340-4340



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/TR 03/00083

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-6 as originally filed

**Claims, Numbers**

1-12 received on 11.06.2004 with letter of 11.06.2004

**Drawings, Sheets**

1/7-7/7 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

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5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-12
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-12
Industrial applicability (IA)	Yes: Claims	1-12
	No: Claims	

2. Citations and explanations

**see separate sheet**

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**Re Item V Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

- 1.1 EP-A-0773329 (D1) discloses with reference to its prior art, cf. page 2, lines 16-30 ('*one or more countermeasures ... to prevent the aforesaid liquefaction. .. (ii) Ground is compacted as by means of ... sand compaction piles to increase the density and strength of loose sand or sandy soil*') a method for the reduction of liquefaction potential of foundation soils, comprising the step of compacting the soil, thus obtaining a strong and compact foundation soil with reduced liquefaction potential, whereby for clarity reasons (Article 6 PCT) the term "it", which lacks an antecedent, was construed to read "the soil". The compaction of the soil is realised e.g. by introducing sand compaction piles.
- 1.2 The subject-matter of claim 1 therefore differs from this known method in that holes are drilled and an expansive resin is injected within the voids. The subject-matter of claim 1 and of the dependent claims 2-12 is therefore novel, Article 33(2) PCT.
- 1.3 The objective problem to be solved by the contribution may therefore be regarded as providing an alternative method for applying lateral pressure within and on the soil. The skilled person would use the common method of creating voids by drilling and injecting an expansive grout, this without the use of any inventive skill and without any surprising effect. For example, for the purpose of compacting the soil using a grout EP-A-0851064 (D2) discloses an injection in a plurality of holes of a substance which expands as a consequence of a chemical reaction for the same purpose namely for applying lateral pressure within and on the soil, albeit, as mentioned, to increase the bearing capacity of the soil, which is the direct consequence of said lateral pressure. Thus claim 1 does not appear to fulfill the requirements of Article 33(1) PCT, its subject matter not involving an inventive step, Article 33(3) PCT.
2. Dependent claims 2-12 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, see the documents and their corresponding passages cited in the search report.
3. Present claims 1-12 are considered to be industrially applicable and therefore meet the

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criteria or Article 33(4) PCT.